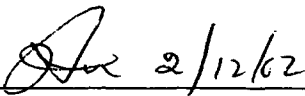


**CENTER FOR DRUG EVALUATION AND  
RESEARCH**

***APPLICATION NUMBER:***  
**76175**

**CHEMISTRY REVIEW(S)**

## ANDA APPROVAL SUMMARY

<b>ANDA:</b> 76-175	<b>CHEMIST:</b> Ramesh Sood, Ph.D.	<b>DATE:</b> February 11, 2002
<b>DRUG PRODUCT:</b> Mefloquine Hydrochloride		
<b>FIRM:</b> Geneva Pharmaceutical Technology Corporation		
<b>DOSAGE FORM:</b> Tablets	<b>STRENGTH:</b> 250 mg	
<b>cGMP:</b> EER Pending		
<b>BIO:</b> Bioequivalence was reviewed by Mamata Gokhale and found acceptable on July 31, 2001.		
<b>VALIDATION - (Description of dosage form same as firm's):</b> The drug substance and the drug product are non-USP. Methods validation request was submitted to FDA laboratory on October 24, 2001 and the results are pending.		
<b>STABILITY:</b> The firm has provided 3 month accelerated stability data and 18 month room temperature data for the drug product packaged in box of five blisters with each blister containing 5 tablets. In addition, the firm also has submitted 3 month accelerated and room temperature data for the bulk tablets stored in LDPE bags. These stability data support the requested 24 month expiration date for 250 mg strength.		
<b>LABELING:</b> Labeling was reviewed by L. Golson and found satisfactory on 7-Feb-2002.		
<b>STERILIZATION VALIDATION (If applicable):</b> N/A		
<b>SIZE OF BIO BATCH (Firm's source of NDS ok?):</b> The sizes of bio-batch is                      tablets ( Lot # D000301) The drug substance, Mefloquine Hydrochloride, was manufactured by		
<b>SIZE OF STABILITY BATCHES (If different from bio batch, were they manufactured via the same process?):</b> N/A		
<b>PROPOSED PRODUCTION BATCH - MANUFACTURING PROCESS THE SAME?:</b> Manufacturing process is same (Batch size:                      Tablets).		
<b>Signature of chemist:</b> <div style="text-align: center; font-size: 1.5em; font-family: cursive;">/S/</div>	<b>Signature of supervisor:</b> <div style="text-align: center; font-size: 1.5em; font-family: cursive;">  2/12/02         </div>	

# **OFFICE OF GENERIC DRUGS**

## **ABBREVIATED NEW DRUG APPLICATION** **CHEMISTRY, MANUFACTURING AND CONTROLS REVIEW**

### **1. CHEMIST'S REVIEW NUMBER**

1

### **2. ANDA NUMBER**

76-175

### **3. NAME AND ADDRESS OF APPLICANT**

Geneva Pharmaceutical Technology Corporation  
Attn: Mahendra Patel, Ph.D.  
2400 Route 130  
Dayton, NJ 08810

Ph: 732-274-2400

Fax: 732-274-8989

### **4. LEGAL BASIS for ANDA SUBMISSION**

The basis of Geneva's proposed ANDA for Mefloquine Hydrochloride Tablets is RLD, Lariam Tablets (NDA 19591) manufactured by F. Hoffmann-la Roche Ltd., Basel, Switzerland and distributed by Roche Laboratories, Inc., 340 Nutley, NJ. The applicant certifies that the claims of U.S. patent No. 4,579,855 (expiring October 1, 2004), that covers the RLD Lariam, are invalid, unenforceable and/or will not be infringed by the manufacture, use or sale of the Mefloquine Tablets (V1.1, June 7 correspondence). GPTC also certifies that there are no exclusivities associated with the approved listed drug product, Lariam Tablets 250 mg.

### **5. SUPPLEMENT(s)**

None

### **6. NAME OF DRUG**

Mefloquine Hydrochloride

### **7. NONPROPRIETARY NAME**

Mefloquine Hydrochloride

### **8. SUPPLEMENT(s) PROVIDE(s) FOR**

None

### **9. AMENDMENTS AND OTHER DATES**

5/23/2001 Original submission

6/7/2001 New Correspondence (Amended patent certification)

### **10. PHARMACOLOGICAL CATEGORY**

Treatment of acute malarial infections.

### **11. HOW DISPENSED**

Prescription

**12. RELATED IND/NDA/DMF(s)**

Product	Holder	DMF No.	LOA
Mefloquine Hydrochloride			V. 1.10, p. 4585
Blister card component manufacturer			V. 1.10, p. 4999
Packaging site for blister packaging			V. 1.10, p. 4998

**13. DOSAGE FORM**

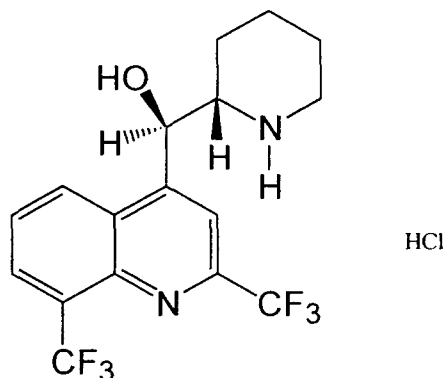
Tablets

**14. POTENCY**

250 mg.

**15. CHEMICAL NAME AND STRUCTURE**

Mefloquine hydrochloride: (R\*,S\*)-(±)-α-2-Piperidiny-2,8-bis (trifluoromethyl)-4-quinilinemethanol hydrochloride; MW 414.78, CAS-No 51773-92-3



**16. RECORDS AND REPORTS**

None

**17. COMMENTS**

The following sections are unsatisfactory: synthesis, raw material control, container, laboratory controls, and stability.

**18. CONCLUSIONS AND RECOMMENDATIONS**

The application is not approvable [Minor Amendment].

**19. REVIEWER AND DATE COMPLETED**

Ramesh Sood, Ph.D./July 24, 2001

**APPEARS THIS WAY  
ON ORIGINAL**

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Chem Review #1

# **OFFICE OF GENERIC DRUGS**

## **ABBREVIATED NEW DRUG APPLICATION** **CHEMISTRY, MANUFACTURING AND CONTROLS REVIEW**

### **1. CHEMIST'S REVIEW NUMBER**

2

### **2. ANDA NUMBER**

76-175

### **3. NAME AND ADDRESS OF APPLICANT**

Geneva Pharmaceutical Technology Corporation  
Attn: Pankaj Dave  
2400 Route 130  
Dayton, NJ 08810

Ph: 732-274-2400

Fax: 732-274-8989

### **4. LEGAL BASIS for ANDA SUBMISSION**

The basis of Geneva's proposed ANDA for Mefloquine Hydrochloride Tablets is RLD, Larium Tablets (NDA 19591) manufactured by F. Hoffmann-la Roche Ltd., Basel, Switzerland and distributed by Roche Laboratories, Inc., 340 Nutley, NJ. The applicant certifies that the claims of U.S. patent No. 4,579,855 (expiring October 1, 2004), that covers the RLD Larium, are invalid, unenforceable and/or will not be infringed by the manufacture, use or sale of the Mefloquine Tablets (V1.1, June 7 correspondence). GPTC also certifies that there are no exclusivities associated with the approved listed drug product, Larium Tablets 250 mg.

### **5. SUPPLEMENT(s)**

None

### **6. PROPRIETARY NAME OF DRUG**

N/A

### **7. NONPROPRIETARY NAME**

Mefloquine Hydrochloride

### **8. SUPPLEMENT(s) PROVIDE(s) FOR**

None

### **9. AMENDMENTS AND OTHER DATES**

5/23/2001	Original submission
6/7/2001	New Correspondence (Amended patent certification)
7/2/2001	New Correspondence (Patent Amendment)
7/11/2001	Telephone Bio Amendment
7/30/2001	Patent Amendment
10/12/2001	Minor Amendment
10/25/2001	Telephone Amendment

10/26/2001 Labeling Amendment  
11/5/2001 Labeling Amendment

**10. PHARMACOLOGICAL CATEGORY**

Treatment of acute malarial infections.

**11. HOW DISPENSED**

Prescription

**12. RELATED IND/NDA/DMF(s)**

Product	Holder	DMF No.	LOA
Mefloquine Hydrochloride			V. 1.10, p. 4585
Blister card component manufacturer			V. 1.10, p. 4999
Packaging site for blister packaging			V. 1.10, p. 4998

**13. DOSAGE FORM**

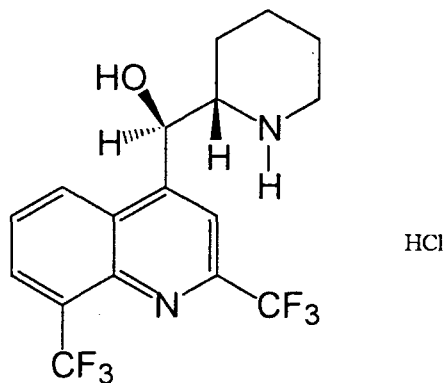
Tablets

**14. POTENCY**

250 mg.

**15. CHEMICAL NAME AND STRUCTURE**

Mefloquine hydrochloride: (R\*,S\*)-(±)-α-2-Piperidiny-2,8-bis (trifluoremethyl)-4-quinilinemethanol hydrochloride; MW 414.78, CAS-No 51773-92-3



**16. RECORDS AND REPORTS**

None



**17. COMMENTS**

EER is pending. Methods validation results from FDA laboratory are awaited.

**18. CONCLUSIONS AND RECOMMENDATIONS**

The application is approvable pending EER.

**19. REVIEWER AND DATE COMPLETED**

Ramesh Sood, Ph.D./February 11, 2002

**APPEARS THIS WAY  
ON ORIGINAL**

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Chem-Review #2

AUG - 8 2001

**38. CHEMISTRY COMMENTS TO BE PROVIDED TO THE APPLICANT**

ANDA: 76-175

APPLICANT: Geneva Pharmaceuticals Technology Corporation

DRUG PRODUCT: Mefloquine Hydrochloride Tablets, 250 mg.

The deficiencies presented below represent **Minor** deficiencies.

A. Deficiencies:

B. In addition to responding to the above deficiencies, please note and acknowledge the following comments in your response:

1. Your labeling information is pending review.  
Deficiencies, if any, will be communicated separately.

2. Your bioequivalency information is pending review. Deficiencies, if any, will be communicated separately.
3. All facilities referenced in the ANDA should have a satisfactory compliance evaluation at the time of approval.
4. We require an acceptable Methods validation to support the ANDA and we will be scheduling this study after all issues related to method validation have been resolved. At that time you will be requested to submit samples. Please provide those requested samples promptly when contacted. Please also provide a commitment to work with us to expeditiously resolve any deficiencies from the Methods validation study if the ANDA is approved prior to its completion.
5. Please provide all available long-term stability data to update your studies.

Sincerely yours,

*RS*

*for*  
Rashmikant M. Patel, Ph.D.  
Director  
Division of Chemistry I  
Office of Generic Drugs  
Center for Drug Evaluation and Research

# ESTABLISHMENT EVALUATION REQUEST SUMMARY REPORT

Application: **ANDA 76175/000**

Priority:

Org Code: **600**

Stamp: **24-MAY-2001** Regulatory Due:

Action Goal:

District Goal: **24-APR-2002**

Applicant: **GENEVA PHARMS TECH  
2400 RT 130 NORTH  
DAYTON, NJ 08810**

Brand Name:

Established Name: **MEFLOQUINE HYDROCHLORIDE**

Generic Name:

Dosage Form: **TAB (TABLET)**

Strength: **250 MG**

FDA Contacts: **T. AMES (HFD-640)**  
**P. SCHWARTZ (HFD-629)**

**301-827-5849 , Project Manager**

**301-827-5848 , Team Leader**

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Overall Recommendation:

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Establishment:

DMF No:

AADA No:

Profile: **CSN** OAI Status: **NONE**  
Last Milestone: **ASSIGNED INSPECTION TO IB**  
Milestone Date: **28-JUN-2001**

Responsibilities: **DRUG SUBSTANCE  
MANUFACTURER**

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Establishment: **2247859**  
**GENEVA PHARMACEUTICALS TECH**  
**2400 RT 130 NORTH**  
**DAYTON, NJ 08810**

DMF No:

AADA No:

Profile: **TCM** OAI Status: **NONE**  
Last Milestone: **SUBMITTED TO DO**  
Milestone Date: **27-JUN-2001**

Responsibilities: **FINISHED DOSAGE  
MANUFACTURER**

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Establishment:

DMF No:

AADA No:

Profile: **TCM** OAI Status: **NONE**  
Last Milestone: **SUBMITTED TO OC**  
Milestone Date: **07-AUG-2001**

Responsibilities: **FINISHED DOSAGE PACKAGER**

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ESTABLISHMENT EVALUATION REQUEST  
DETAIL REPORT

Application:	ANDA 76175/000	Action Goal:
Stamp:	24-MAY-2001	District Goal: 24-APR-2002
Regulatory Due:		Brand Name:
Applicant:	GENEVA PHARMS TECH	Estab. Name: MEFLOQUINE HYDROCHLORIDE
	2400 RT 130 NORTH	Generic Name:
	DAYTON, NJ 08810	
Priority:		Dosage Form: (TABLET)
Org Code:	600	Strength: 250 MG
Application Comment:		
FDA Contacts:	T. AMES (HFD-640)	301-827-5849 , Project Manager
	P. SCHWARTZ (HFD-629)	301-827-5848 , Team Leader

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Overall Recommendation:  
Establishment:

DMF No: AADA:  
Responsibilities: DRUG SUBSTANCE MANUFACTURER  
Profile: CSN OAI Status: NONE  
Estab. Comment:

Milestone Name	Date	Req. Type	Insp. Date	Decision & Reason	Creator
SUBMITTED TO OC	27-JUN-2001				MIDDLETONS

Establishment: 2247859

GENEVA PHARMACEUTICALS TECHNOLOGY CORP  
2400 RT 130 NORTH  
DAYTON, NJ 08810

DMF No: AADA:  
Responsibilities: FINISHED DOSAGE MANUFACTURER  
Profile: TCM OAI Status: NONE  
Estab. Comment:

Milestone Name	Date	Req. Type	Insp. Date	Decision & Reason	Creator
SUBMITTED TO OC	27-JUN-2001				MIDDLETONS